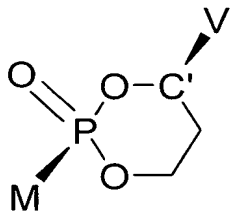
Amendments to the Claims

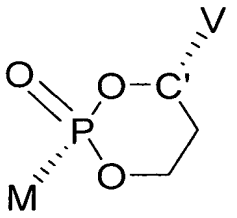
The listing of claims will replace all prior versions and listings of claims in the application.

1-98. (canceled)

99. (new) A method of making a compound of Formula II.A or Formula II.B or salt thereof



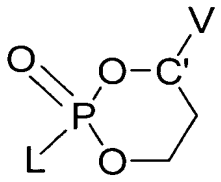
Formula II.A



Formula II.B

said method comprising:

(a) isomerizing a mixture of *trans/cis* isomers of the compound of Formula I to give a ratio of *trans/cis* of about 85/15 or greater;



Formula I

wherein:

V and L are *trans* relative to one another;

V is selected from the group consisting of heteroaryl, and phenyl, all optionally substituted with 1-4 substituents;

L is selected from the group consisting of halogen, and aryloxy optionally substituted with 1-2 substituents; and

(b) reacting the compound of Formula I having the ratio of *trans/cis* isomers of about 85/15 or greater, or salt thereof, with MH, wherein:

MH is selected from the group consisting of protected and unprotected oncolytic agents and antiviral agents and wherein:

H is attached to O, S, or N of said oncolytic and antiviral agents; and

M is attached to phosphorus via an oxygen, nitrogen or sulfur atom.

100. (new) The method of claim 99, wherein said isomerizing comprises treating the mixture of *trans/cis* isomers of the compound of Formula I with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

101. (new) The method of claim 99, wherein said isomerizing comprises heating the mixture of *trans/cis* isomers of the compound of Formula I to give the ratio of *trans/cis* isomers of about 85/15 or greater.

102. (new) The method of claim 101, wherein said heating is from 40 °C to 70 °C.

103. (new) The method of claim 99, wherein said isomerizing comprises isolating the *cis* isomer from the mixture of *trans/cis* isomers of Formula I and treating the *cis* isomer with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

104. (new) The method of claim 99, wherein M is attached to phosphorus via an oxygen present in a primary hydroxyl on MH.

105. (new) The method of claim 99, wherein M is attached to phosphorus via an oxygen present in a hydroxyl group on an acyclic sugar in MH.

106. (new) The method of claim 99, wherein MH is reacted with the compound of Formula I in the presence of a base.

107. (new) The method of claim 99, wherein MH is a protected nucleoside and further comprising the steps of:

forming an anion of MH with a base; and

adding the compound of Formula I or salt thereof to said anion.

108. (new) The method of claim 99, wherein MH is an unprotected nucleoside, and wherein the compound of Formula I or salt thereof is added to MH or salt thereof.

109. (new) The method of claim 106, wherein said base is R'MgX' wherein:

R' is selected from the group consisting of C1-C5 alkyl, and aryl optionally substituted with 1-3 substituents; and

X' is halogen.

110. (new) The method of claim 109, wherein said base is selected from the group consisting of *tert*-BuMgCl, and phenylMgCl.

111. (new) The method of claim 109, wherein said base is *tert*-BuMgCl.

112. (new) The method of claim 99, further comprising:

forming an anion of a protected nucleoside with a base;

adding a Lewis acid; and

adding the compound of Formula I.

113. (new) The method of claim 99, wherein MH is a nucleoside, and further comprising:

forming an anion of MH with a base;

adding a Mg salt; and

generating the Mg salt of said anion.

114. (new) The method of claim 113, wherein said base is selected from the group consisting of alkali hydride, organometallic base, trialkylamine, and N-containing heteroaryl base.

115. (new) The method of claim 113, wherein:

said base is selected from the group consisting of sodium hydride (NaH), lithium hydride (LiH), lithium diethylamide (LDA), lithium hexamethyldisilazide (LHMDS), potassium *t*-butoxide (*t*-BuOK), butyl lithium (BuLi), triethylamine (Et_3N), diisopropylethylamine, 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU), diazabicyclo[2.2.2]octane (DABCO), and pyridine.

116. (new) The method of claim 113, wherein said salt is selected from the group consisting of $MgCl_2$, $MgBr_2$, and MgI_2.

117. (new) The method of claim 113, wherein said base is NaH and said salt is $MgCl_2$.

118. (new) The method of claim 113, wherein said base is t-BuOK and said salt is $MgCl_2$.

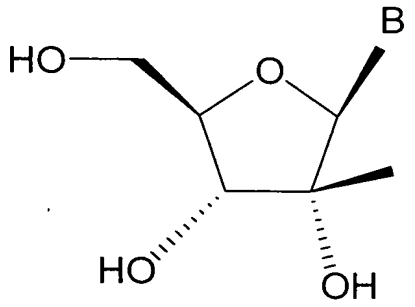
119. (new) The method of claim 113, wherein said base is BuLi and said salt is $MgCl_2$.

120. (new) The method of claim 113, wherein said base is 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) and said salt is $MgCl_2$.

121. (new) The method of claim 113, wherein said base is Et_3N and said salt is $MgCl_2$.

122. (new) The method of claim 99, wherein said oncolytic agent or antiviral agent is selected from the group consisting of araA (9-β-D-arabinofuranosyladenine); AZT (3'-azido-2',3'-dideoxythymidine); d4T (2',3'-didehydro-3'-deoxythymidine); ddI (2',3'-dideoxyinosine); ddA (2',3'-dideoxyadenosine); ddC (2',3'-dideoxycytidine); L-ddC (L-2',3'-dideoxycytidine); L-FddC (L-2',3'-dideoxy-5-fluorocytidine); L-d4C (β-L-2',3'-didehydro-2',3'-dideoxy-cytidine); L-Fd4C (β-L-2',3'-didehydro-2',3'-dideoxy-5-fluorocytidine); 3TC ((-)-2',3'-dideoxy-3'-thiacytidine); ribavirin (1-β-D-ribofuranosyl-1,2,4-triazole-3-carboxamide); 5-fluoro-2'-deoxyuridine; FIAU (1-(2'-deoxy-2'-fluoro-β-D-arabinofuranosyl)-5-iodouridine); FIAC (1-(2'-deoxy-2-fluoro-β-D-arabinofuranosyl)-5-iodocytosine); BHCG ((±)-(1α,2α,3α)-9-[2',3'-bis(hydroxymethyl)cyclobutyl]-guanine); L-FMAU (2'-Fluoro-5-methyl-β-L-arabinofuranosyluracil); BvaraU (1'-β-D-arabinofuranosyl-E-5-(2-bromovinyl)uracil); E-5-(2-bromovinyl)-2'-deoxyuridine); TFT (Trifluorothymidine); 5-propynyl-1'-arabinofuranosyluracil; CDG (carbocyclic 2'-deoxyguanosine); DAPD ((-)-β-D-2,6-diaminopurine dioxolane); FDOC ((-)-β-D-5-fluoro-1-[2'-(hydroxymethyl)-1',3'-dioxolane]cytosine); d4C (-2',3'-didehydro-2',3'-dideoxy-cytidine); DXG (dioxolane guanosine); FEAU (2'-deoxy-2'-fluoro-1'-β-D-arabinofuranosyl-5-ethyluracil); FLG (2',3'-dideoxy-3'-fluoroguanosine); FTC ((-)-cis-5-fluoro-1-[2'-(hydroxymethyl)-1',3'-oxathiolan-5'-yl]-cytosine); L-dC (β-L-2'-deoxycytosine); L-dT (β-L-2'-deoxythymidine); 5-yl-carbocyclic-2'-deoxyguanosine; oxetanocin A (9-(2'-deoxy-2'-hydroxymethyl-β-D-erythro-oxetanosyl)adenine);

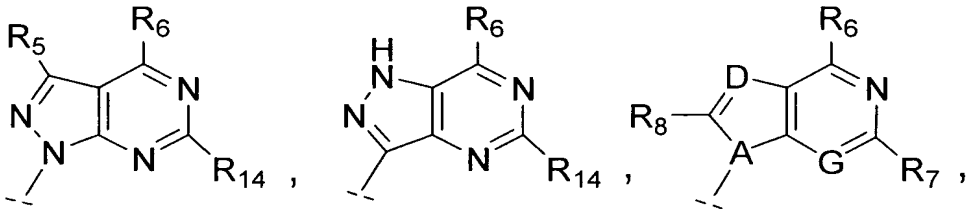
oxetanocin G (9-(2'-deoxy-2'-hydroxymethyl-β-D-erythro-oxetanosyl)guanine); Cyclobut A ((+/-)-9-[(1'-β,2'-α,3'-β)-2',3'-bis(hydroxymethyl)-1'-cyclobutyl]adenine); Cyclobut G ((+/-)-9-[(1'-β,2'-α,3'-β)-2,3-bis(hydroxymethyl)-1-cyclobutyl]guanine); dFdC (2',2'-difluoro-2'-deoxycytidine); araC (arabinofuranosylcytosine); bromodeoxyuridine; IDU (5-iodo-2'-deoxyuridine); CdA (2-chloro-2'-deoxyadenosine); FaraA (2-fluoroarabinofuranosyladenosine); Coformycin; 2'-deoxycoformycin; araT (1-β-D-arabinofuranoside thymidine); tiazofurin; ddAPR (2,6-diaminopurine-2',3'-dideoxyriboside); 9-(arabinofuranosyl)-2,6-diaminopurine; 9-(2'-deoxyribofuranosyl)-2,6-diaminopurine; 9-(2'-deoxy-2'-fluororibofuranosyl)-2,6-diaminopurine; 9-(arabinofuranosyl)guanine; 9-(2'-deoxyribofuranosyl)guanine; 9-(2'-deoxy-2'-fluororibofuranosyl)guanine; FMDC ((E)-2'-deoxy-2'(fluoromethylene)cytidine); DMDC (2'-deoxy-2'-methyledene-cytidine); 4'-thio-araC (4'-thio-arabinofuranosyl-cytidine); 5,6 dihydro-5-azacytidine; 5-azacytidine; 5-aza-2'-deoxycytidine; AICAR (5-aminoimidazole-4-carboxamido-1-ribofuranosyl); NK-84-0218; AM365; MCC478; ICN 2001; Fluor L and D nucleosides; Famciclovir (2-[2-(2-amino-9H-purin-9-yl)ethyl]-1,3-propanediol diacetate); ACV (9-(2'-hydroxyethoxylmethyl)guanine); GCV (9-(1',3'-dihydroxy-2'-propoxymethyl)guanine); penciclovir (9-(4'-hydroxy-3'-hydroxymethylbut-1'-yl)guanine); (R)-9-(3',4'-dihydroxybutyl)guanine, cytallene (1-(4'-hydroxy-1',2'-butadienyl)cytosine), and 2'-β-methyl-ribofuranosyl nucleosides of Formula III:

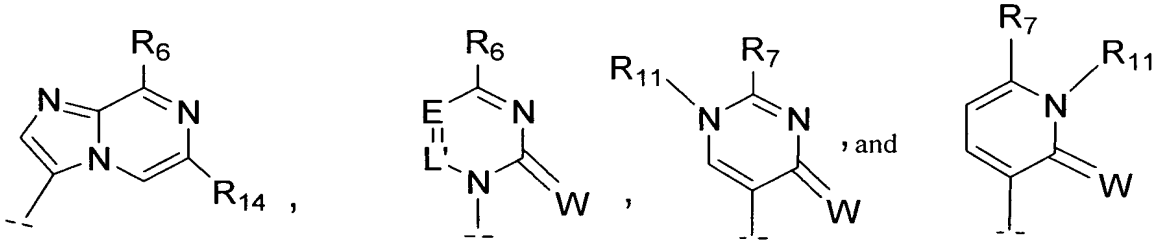


Formula III

wherein:

B is selected from the group consisting of





wherein:

A, G, and L' are each independently CH or N;

D is N, CH, C-CN, C-NO_2, C-C_{1-3} alkyl, C-$NHCONH_2$, C-$CONR^{11}R^{11}$, C-$CSNR^{11}R^{11}$, C-$COOR^{11}$, C-$C(=NH)NH_2$, C-hydroxy, C-C_{1-3} alkoxy, C-amino, C-C_{1-4} alkylamino, C-di(C_{1-4} alkyl)amino, C-halogen, C-(1,3oxazol-2-yl), C-(1,3-thiazol-2-yl), or C-(imidazol-2-yl); wherein alkyl is unsubstituted or substituted with one to three groups independently selected from halogen, amino, hydroxy, carboxy, and C_{1-3} alkoxy;

E is N or CR^5;

W is O or S;

R^5 is H, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-4} alkylamino, CF_3, or halogen;

R^6 is H, OH, SH, NH_2, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, C_{3-6} cycloalkylamino, halogen, C_{1-4} alkyl, C_{1-4} alkoxy, or CF_3;

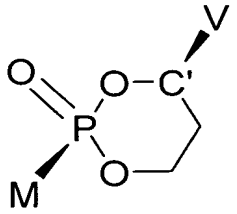
R^7 is H, amino, C_{1-4} alkylamino, C_{3-6} cycloalkylamino, or di(C_{1-4} alkyl)amino;

R^8 is H, halogen, CN, carboxy, C_{1-4} alkyloxycarbonyl, N_3, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, hydroxy, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfonyl, or (C_{1-4} alkyl)$_{0-2}$ aminomethyl;

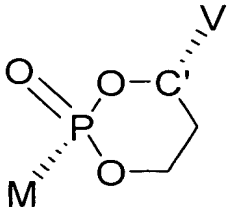
R^{11} is H or C_{1-6} alkyl; and

R^{14} is H, CF_3, C_{1-4} alkyl, amino, C_{1-4} alkylamino, C_{3-6} cycloalkylamino, or di(C_{1-4} alkyl)amino.

123. (new) A method of making a compound of Formula II.A or Formula II.B or salt thereof, said method comprising:

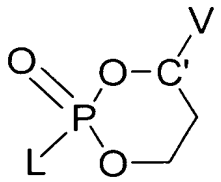


Formula II.A



Formula II.B

(a) isomerizing a mixture of *trans/cis* isomers of the compound of Formula I to give a ratio of *trans/cis* of about 85/15 or greater;



Formula I

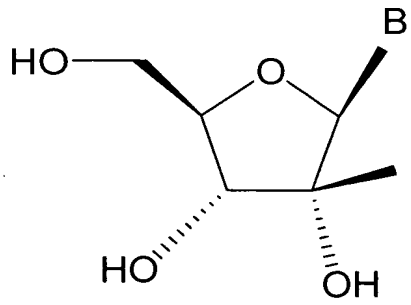
wherein:

V and L are *trans* relative to one another;

V is selected from the group consisting of heteroaryl, and phenyl, all optionally substituted with 1-4 substituents;

L is selected from the group consisting of halogen, and aryloxy optionally substituted with 1-2 substituents; and

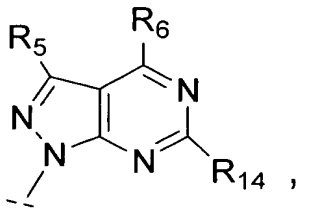
(b) reacting the compound of Formula I having the ratio of *trans/cis* isomers of about 85/15 or greater, or salt thereof, with MH, wherein M is a nucleoside residue of Formula III;



Formula III

wherein:

B is selected from the group consisting of



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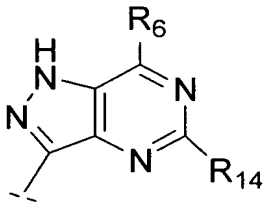

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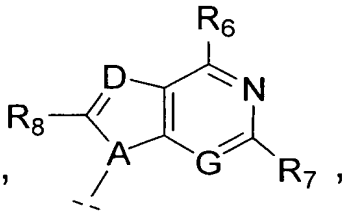

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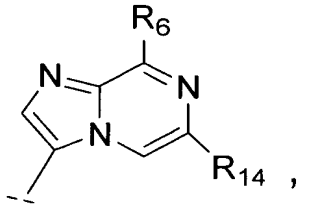

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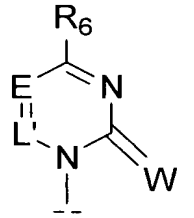

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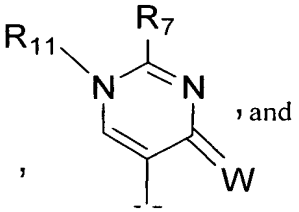
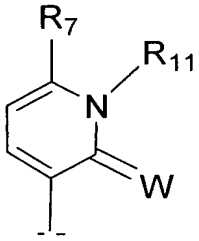


, and


wherein:

A, G, and L' are each independently CH or N;

D is N, CH, C-CN, C-NO_2, C-C_{1-3} alkyl, C-$NHCONH_2$, C-$CONR^{11}R^{11}$, C-$CSNR^{11}R^{11}$, C-$COOR^{11}$, C-$C(=NH)NH_2$, C-hydroxy, C-C_{1-3} alkoxy, C-amino, C-C_{1-4} alkylamino, C-di(C_{1-4} alkyl)amino, C-halogen, C-(1,3oxazol-2-yl), C-(1,3-thiazol-2-yl), or C-(imidazol-2-yl); wherein alkyl is unsubstituted or substituted with one to three groups independently selected from halogen, amino, hydroxy, carboxy, and C_{1-3} alkoxy;

E is N or CR^5;

W is O or S;

R^5 is H, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-4} alkylamino, CF_3, or halogen;

R^6 is H, OH, SH, NH_2, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, C_{3-6} cycloalkylamino, halogen, C_{1-4} alkyl, C_{1-4} alkoxy, or CF_3;

R^7 is H, amino, C_{1-4} alkylamino, C_{3-6} cycloalkylamino, or di(C_{1-4} alkyl)amino;

R^8 is H, halogen, CN, carboxy, C_{1-4} alkyloxycarbonyl, N_3, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, hydroxy, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfonyl, or (C_{1-4} alkyl)$_{0-2}$ aminomethyl;

R^{11} is H or C_{1-6} alkyl; and

R^{14} is H, CF_3, C_{1-4} alkyl, amino, C_{1-4} alkylamino, C_{3-6} cycloalkylamino, or di(C_{1-4} alkyl)amino.

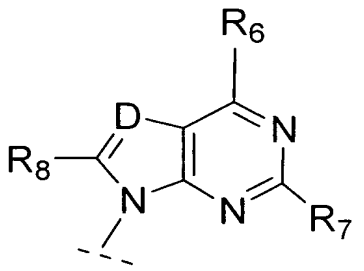
124. (new) The method of claim 123, wherein said isomerizing comprises treating the compound of Formula I with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

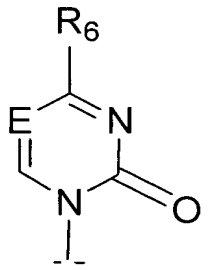
125. (new) The method of claim 123, wherein said isomerizing comprises heating the compound of Formula I to give the ratio of *trans/cis* isomers of about 85/15 or greater.

126. (new) The method of claim 125, wherein said heating is from 40 °C to 70 °C.

127. (new) The method of claim 123, wherein said isomerizing comprises isolating the *cis* isomer from the mixture of *trans/cis* isomers of Formula I and treating the *cis* isomer with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

128. (new) The method of claim 123, wherein B is selected from the group consisting of



, and


;

wherein:

D is N, CH, C-CN, C-NO_2, C-C_{1-3} alkyl, C-$NHCONH_2$, C-$CONR^{11}R^{11}$, C-$COOR^{11}$, C-hydroxy, C-C_{1-3} alkoxy, C-amino, C-C_{1-4} alkylamino, C-di(C_{1-4} alkyl)amino, or C-halogen;

E is N or CR^5;

R^5 is H, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-4} alkylamino, CF_3, or halogen;

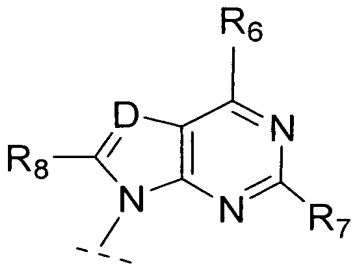
R^6 is H, OH, SH, NH_2, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, C_{3-6} cycloalkylamino, halogen, C_{1-4} alkyl, C_{1-4} alkoxy, or CF_3;

R^7 is H, amino, C_{1-4} alkylamino, C_{3-6} cycloalkylamino, or di(C_{1-4} alkyl)amino;

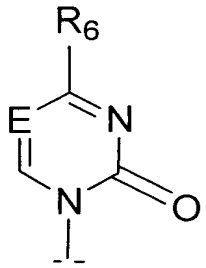
R^8 is H, halogen, CN, carboxy, C_{1-4} alkyloxycarbonyl, N_3, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, hydroxy, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfonyl, or (C_{1-4} alkyl)$_{0-2}$ aminomethyl;

R^{11} is H or C_{1-6} alkyl.

129. (new) The method of claim 123, wherein B is selected from the group consisting of



, and



;

wherein:

D is N, CH, or C-halogen

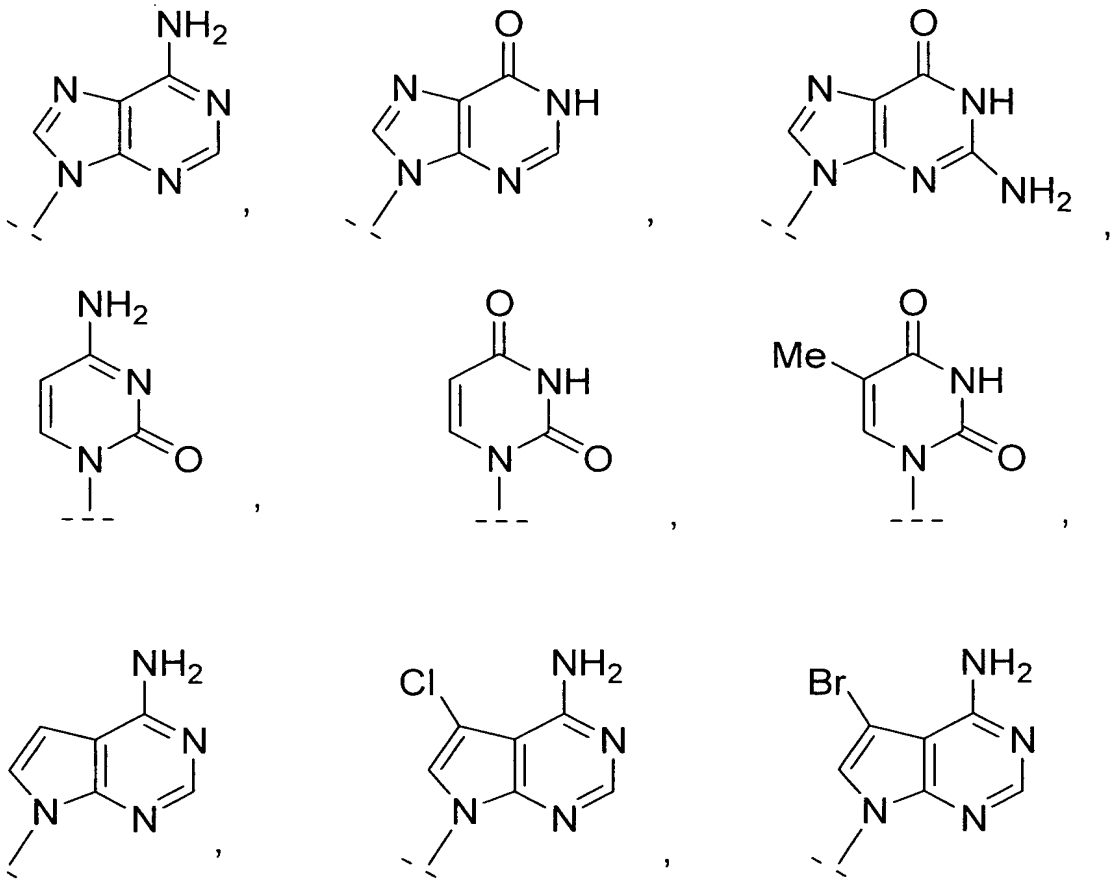
E is N or C-Me;

R^6 is OH, or NH_2;

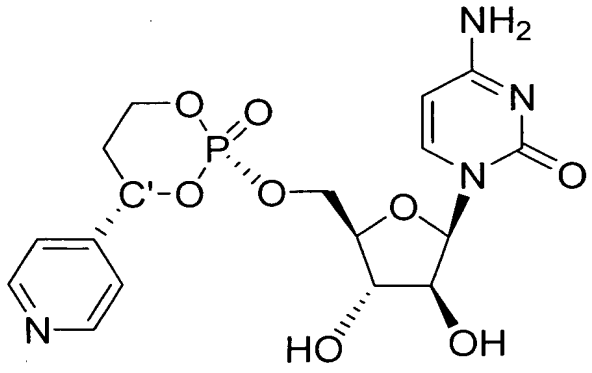
R^7 is H or amino;

R^8 is H or halogen.

130. (new) The method of claim 123, wherein B is selected from the group consisting of

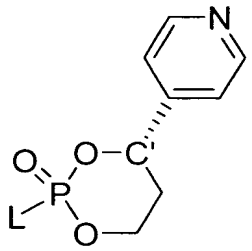


131. (new) A method for the preparation of a compound of Formula V, said method comprising:



Formula V

(a) isomerizing a mixture of *trans/cis* isomers of the compound of Formula IV to give the compound of Formula IV wherein the ratio of *trans/cis* isomers is about 85/15 or greater;



Formula IV

wherein L is selected from the group consisting of chloro and 4-nitrophenoxy, and

(b) coupling the compound of Formula IV having the ratio of *trans/cis* isomers of about 85/15 or greater, with optionally protected cytarabine.

132. (new) The method of claim 131, wherein said isomerizing comprises treating the mixture of *trans/cis* isomers of the compound of Formula IV with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

133. (new) The method of claim 131, wherein said isomerizing comprises heating the mixture of *trans/cis* isomers of the compound of Formula IV to give the ratio of *trans/cis* isomers of about 85/15 or greater.

134. (new) The method of claim 133, wherein said heating is from 40 °C to 70 °C.

135. (new) The method of claim 131, wherein said isomerizing comprises isolating the *cis* isomer from the mixture of *trans/cis* isomers of Formula IV and treating the *cis* isomer with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

136. (new) The method of claim 131, wherein a base is used in the coupling reaction in (b).

137. (new) The method of claim 136, wherein said base is RMgX wherein:

R is C1-C5 alkyl; and

X is halogen.

138. (new) The method of claim 137, wherein said base is *t*-BuMgCl.

139. (new) The method of claim 131, wherein the hydroxyl groups and 4-amino group of cytarabine are protected.

140. (new) The method of claim 139, wherein the 4-amino of cytarabine is protected as a dimethylformamidine.

141. (new) The method of claim 131, wherein a protecting group for the 2' and 3' hydroxyl groups of cytarabine is selected from the group consisting of trialkylsilyl

ether, optionally substituted methoxy methyl (MOM) ether, and optionally substituted 2-methoxyethoxy methyl (MEM) ether.

142. (new) The method of claim 131, wherein said protecting group for 2' and 3' hydroxyl groups of cytarabine is *t*-butyldimethylsilyl ether.

143. (new) The method of claim 131, wherein the hydroxyl groups and 4-amino group of cytarabine are not protected.

144. (new) The method of claim 143, wherein L is chloro.

145. (new) The method of claim 131, further comprising: forming an anion of said optionally protected cytarabine with a base; adding a Mg salt; and generating the Mg salt of the anion of said optionally protected cytarabine.

146. (new) The method of claim 145, wherein said base is selected from the group consisting of alkali hydride, organometallic base, trialkylamine, and N-containing heteroaryl base.

147. (new) The method of claim 145, wherein said salt is selected from the group consisting of $MgCl_2$, $MgBr_2$, and MgI_2.

148. (new) The method of claim 145, wherein said base is NaH and said salt is $MgCl_2$.

149. (new) The method of claim 145, wherein said base is t-BuOK and said salt is $MgCl_2$.

150. (new) The method of claim 145, wherein said base is BuLi and said salt is $MgCl_2$.

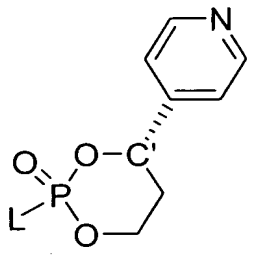
151. (new) The method of claim 145, wherein said base is 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) and said salt is $MgCl_2$.

152. (new) The method of claim 145, wherein said base is Et_3N and said salt is $MgCl_2$.

153. (new) The method of claim 131, further comprising:

using t-BuMgCl as a base;

using the compound of Formula IV



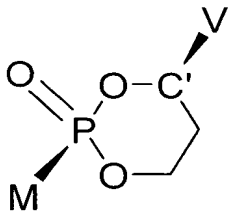
Formula IV

wherein:

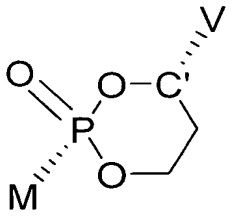
L is 4-nitrophenoxy; and

said optionally protected cytarabine has the 2' and 3' hydroxyl groups protected as *t*-butyldimethylsilyl ethers and the 4 amino group protected as dimethylformamidine.

154. (new) A method of making a compound of Formula II.A or Formula II.B or salt thereof



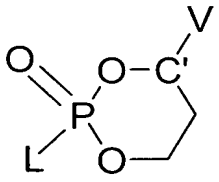
Formula II.A



Formula II.B

said method comprising:

(a) isomerizing a mixture of *trans/cis* isomers of the compound of Formula I to give a ratio of *trans/cis* of about 85/15 or greater;



Formula I

wherein:

V and L are *trans* relative to one another;

V is selected from the group consisting of heteroaryl, and phenyl, all optionally substituted with 1-4 substituents;

L is selected from the group consisting of halogen, and aryloxy optionally substituted with 1-2 substituents; and

(b) reacting the compound of Formula I having the ratio of *trans/cis* isomers of about 85/15 or greater, or salt thereof, with MH, wherein:

MH is a nucleoside, and wherein:

H is attached to O, S, or N of said nucleoside; and

M is attached to phosphorus via an oxygen, nitrogen or sulfur atom.

155. (new) The method of claim 154, wherein said isomerizing comprises treating the mixture of *trans/cis* isomers of the compound of Formula I with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

156. (new) The method of claim 154, wherein said isomerizing comprises heating the mixture of *trans/cis* isomers of the compound of Formula I to give the ratio of *trans/cis* isomers of about 85/15 or greater.

157. (new) The method of claim 156, wherein said heating is from 40 °C to 70 °C.

158. (new) The method of claim 154, wherein said isomerizing comprises isolating the *cis* isomer from the mixture of *trans/cis* isomers of Formula I and treating the *cis* isomer with L^- to give the ratio of *trans/cis* isomers of about 85/15 or greater.

159. (new) The method of claim 154, wherein M is attached to phosphorus via an oxygen present in a primary hydroxyl on MH.

160. (new) The method of claim 154, wherein M is a nucleoside in which the sugar is acyclic.

161. (new) The method of claim 160, wherein M is attached to phosphorus via an oxygen present in a hydroxyl group on the acyclic sugar in MH.

162. (new) The method of claim 154, wherein MH is reacted with the compound of Formula I in the presence of a base.

163. (new) The method of claim 154, wherein MH is a protected nucleoside and further comprising the steps of:

forming an anion of MH with a base; and

adding the compound of Formula I or salt thereof to said anion.

164. (new) The method of claim 154, wherein MH is an unprotected nucleoside, and wherein the compound of Formula I or salt thereof is added to MH or salt thereof.

165. (new) The method of claim 162, wherein said base is R'MgX' wherein:

R' is selected from the group consisting of C1-C5 alkyl, and aryl optionally substituted with 1-3 substituents; and

X' is halogen.

166. (new) The method of claim 165, wherein said base is selected from the group consisting of *tert*-BuMgCl, and phenylMgCl.

167. (new) The method of claim 165, wherein said base is *tert*-BuMgCl.

168. (new) The method of claim 154, further comprising:

forming an anion of a protected nucleoside with a base;

adding a Lewis acid; and

adding the compound of Formula I.

169. (new) The method of claim 154, wherein MH is a nucleoside, and further comprising:

forming an anion of MH with a base;

adding a Mg salt; and

generating the Mg salt of said anion.

170. (new) The method of claim 169, wherein said base is selected from the group consisting of alkali hydride, organometallic base, trialkylamine, and N-containing heteroaryl base.

171. (new) The method of claim 169, wherein:

said base is selected from the group consisting of sodium hydride (NaH), lithium hydride (LiH), lithium diethylamide (LDA), lithium hexamethyldisilazide (LHMDS), potassium *t*-butoxide (*t*-BuOK), butyl lithium (BuLi), triethylamine (Et_3N), diisopropylethylamine, 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU), diazabicyclo[2.2.2]octane (DABCO), and pyridine.

172. (new) The method of claim 169, wherein said salt is selected from the group consisting of $MgCl_2$, $MgBr_2$, and MgI_2.

173. (new) The method of claim 169, wherein said base is NaH and said salt is $MgCl_2$.

174. (new) The method of claim 169, wherein said base is t-BuOK and said salt is $MgCl_2$.

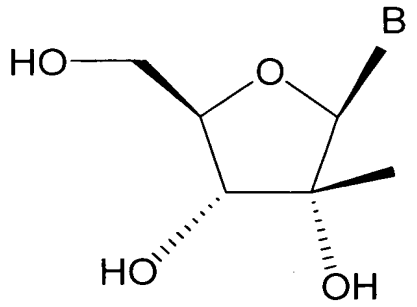
175. (new) The method of claim 169, wherein said base is BuLi and said salt is $MgCl_2$.

176. (new) The method of claim 169, wherein said base is 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) and said salt is $MgCl_2$.

177. (new) The method of claim 169, wherein said base is Et_3N and said salt is $MgCl_2$.

178. (new) The method of claim 154, wherein said nucleoside is selected from the group consisting of araA (9-β-D-arabinofuranosyladenine); AZT (3'-azido-2',3'-dideoxythymidine); d4T (2',3'-didehydro-3'-deoxythymidine); ddI (2',3'-dideoxyinosine); ddA (2',3'-dideoxyadenosine); ddC (2',3'-dideoxycytidine); L-ddC (L-2',3'-dideoxycytidine); L-FddC (L-2',3'-dideoxy-5-fluorocytidine); L-d4C (β-L-2',3'-didehydro-2',3'-dideoxy-cytidine); L-Fd4C (β-L-2',3'-didehydro-2',3'-dideoxy-5-fluorocytidine); 3TC ((-)-2',3'-dideoxy-3'-thiacytidine); ribavirin (1-β-D-ribofuranosyl-1,2,4-triazole-3-carboxamide); 5-fluoro-2'-deoxyuridine; FIAU (1-(2'-deoxy-2'-fluoro-β-D-arabinofuranosyl)-5-iodouridine); FIAC (1-(2'-deoxy-2-fluoro-β-D-arabinofuranosyl)-5-iodocytosine); BHCG ((±)-(1α,2α,3α)-9-[2',3'-bis(hydroxymethyl)cyclobutyl]-guanine); L-FMAU (2'-Fluoro-5-methyl-β-L-arabinofuranosyluracil); BvaraU (1'-β-D-arabinofuranosyl-E-5-(2-bromovinyl)uracil); E-5-(2-bromovinyl)-2'-deoxyuridine); TFT (Trifluorothymidine); 5-propynyl-1'-arabinofuranosyluracil; CDG (carbocyclic 2'-deoxyguanosine); DAPD ((-)-β-D-2,6-diaminopurine dioxolane); FDOC ((-)-β-D-5-fluoro-1-[2'-(hydroxymethyl)-1',3'-dioxolane]cytosine); d4C (-2',3'-didehydro-2',3'-dideoxy-cytidine); DXG (dioxolane guanosine); FEAU (2'-deoxy-2'-fluoro-1'-β-D-arabinofuranosyl-5-ethyluracil); FLG (2',3'-dideoxy-3'-fluoroguanosine); FTC ((-)-cis-5-fluoro-1-[2'-(hydroxymethyl)-1',3'-oxathiolan-5'-yl]-cytosine); L-dC (β-L-2'-deoxycytosine); L-dT (β-L-2'-deoxythymidine); 5-yl-carbocyclic-2'-deoxyguanosine; oxetanocin A (9-(2'-deoxy-2'-hydroxymethyl-β-D-erythro-oxetanosyl)adenine);

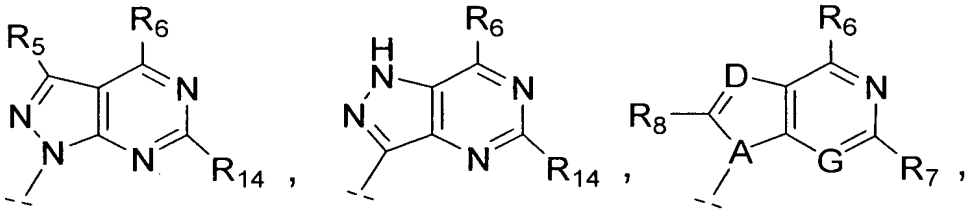
oxetanocin G (9-(2'-deoxy-2'-hydroxymethyl-β-D-erythro-oxetanosyl)guanine); Cyclobut A ((+/-)-9-[(1'-β,2'-α,3'-β)-2',3'-bis(hydroxymethyl)-1'-cyclobutyl]adenine); Cyclobut G ((+/-)-9-[(1'-β,2'-α,3'-β)-2,3-bis(hydroxymethyl)-1-cyclobutyl]guanine); dFdC (2',2'-difluoro-2'-deoxycytidine); araC (arabinofuranosylcytosine); bromodeoxyuridine; IDU (5-iodo-2'-deoxyuridine); CdA (2-chloro-2'-deoxyadenosine); FaraA (2-fluoroarabinofuranosyladenosine); Coformycin; 2'-deoxycoformycin; araT (1-β-D-arabinofuranoside thymidine); tiazofurin; ddAPR (2,6-diaminopurine-2',3'-dideoxyriboside); 9-(arabinofuranosyl)-2,6-diaminopurine; 9-(2'-deoxyribofuranosyl)-2,6-diaminopurine; 9-(2'-deoxy-2'-fluororibofuranosyl)-2,6-diaminopurine; 9-(arabinofuranosyl)guanine; 9-(2'-deoxyribofuranosyl)guanine; 9-(2'-deoxy-2'-fluororibofuranosyl)guanine; FMDC ((E)-2'-deoxy-2'(fluoromethylene)cytidine); DMDC (2'-deoxy-2'-methyledene-cytidine); 4'-thio-araC (4'-thio-arabinofuranosyl-cytidine); 5,6 dihydro-5-azacytidine; 5-azacytidine; 5-aza-2'-deoxycytidine; AICAR (5-aminoimidazole-4-carboxamido-1-ribofuranosyl); NK-84-0218; AM365; MCC478; ICN 2001; Fluor L and D nucleosides; Famciclovir (2-[2-(2-amino-9H-purin-9-yl)ethyl]-1,3-propanediol diacetate); ACV (9-(2'-hydroxyethoxylmethyl)guanine); GCV (9-(1',3'-dihydroxy-2'-propoxymethyl)guanine); penciclovir (9-(4'-hydroxy-3'-hydroxymethylbut-1'-yl)guanine); (R)-9-(3',4'-dihydroxybutyl)guanine, cytallene (1-(4'-hydroxy-1',2'-butadienyl)cytosine), and 2'-β-methyl-ribofuranosyl nucleosides of Formula III:

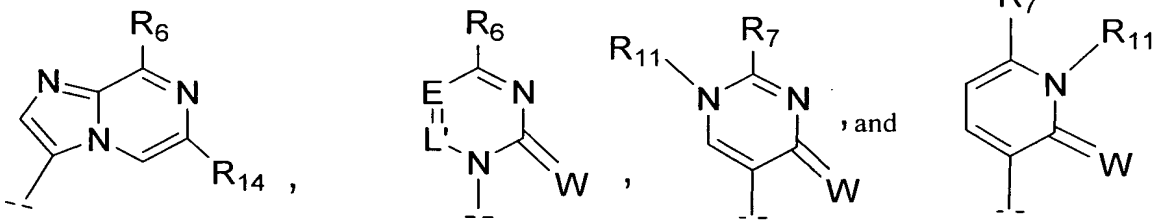


Formula III

wherein:

B is selected from the group consisting of





wherein:

A, G, and L' are each independently CH or N;

D is N, CH, C-CN, C-NO_2, C-C_{1-3} alkyl, C-$NHCONH_2$, C-$CONR^{11}R^{11}$, C-$CSNR^{11}R^{11}$, C-$COOR^{11}$, C-$C(=NH)NH_2$, C-hydroxy, C-C_{1-3} alkoxy, C-amino, C-C_{1-4} alkylamino, C-di(C_{1-4} alkyl)amino, C-halogen, C-(1,3oxazol-2-yl), C-(1,3-thiazol-2-yl), or C-(imidazol-2-yl); wherein alkyl is unsubstituted or substituted with one to three groups independently selected from halogen, amino, hydroxy, carboxy, and C_{1-3} alkoxy;

E is N or CR^5;

W is O or S;

R^5 is H, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-4} alkylamino, CF_3, or halogen;

R^6 is H, OH, SH, NH_2, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, C_{3-6} cycloalkylamino, halogen, C_{1-4} alkyl, C_{1-4} alkoxy, or CF_3;

R^7 is H, amino, C_{1-4} alkylamino, C_{3-6} cycloalkylamino, or di(C_{1-4} alkyl)amino;

R^8 is H, halogen, CN, carboxy, C_{1-4} alkyloxycarbonyl, N_3, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, hydroxy, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfonyl, or (C_{1-4} alkyl)$_{0-2}$ aminomethyl;

R^{11} is H or C_{1-6} alkyl; and

R^{14} is H, CF_3, C_{1-4} alkyl, amino, C_{1-4} alkylamino, C_{3-6} cycloalkylamino, or di(C_{1-4} alkyl)amino.